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ACTIVITIES IMPLEMENTED JOINTLY UNDER THE PILOT PHASE

Issues to be addressed in the review of the pilot phase, including the third synthesis report on activities implemented jointly

Note by the secretariat

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Annex 1

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Annex 2

Draft revised uniform reporting format for AIJ

[1] The annexes to this document are contained in an addendum, document FCCC/SB/1999/5/Add.1.

INTRODUCTION

1. The Convention stipulates, as one of its principles, that efforts to address climate change may be carried out cooperatively by interested Parties (Article 3.3). By its decision 6/CP.4,[2] the Conference of the Parties (COP), at its fourth session, reaffirmed decision 5/CP.1[3] through which a pilot phase for activities implemented jointly (referred to below as "AIJ pilot phase") had been established among Parties included in Annex I to the Convention (Annex I Parties) and, on a voluntary basis, with Parties not included in Annex I to the Convention (non-Annex I Parties) that so requested.

2. This document on the AIJ pilot phase has two main parts and an addendum,[4] and responds to various mandates: (i) part one contains a report on issues to be addressed in a comprehensive review of the AIJ pilot phase at the eleventh sessions of the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI), with a view to preparing a recommendation to the fifth session of the COP on further steps;[5] (ii) part two, the third synthesis report on the AIJ pilot phase, called for in decision 5/CP.1, is to assist the COP in reviewing the progress of the pilot phase and in taking a conclusive decision on the pilot phase and the progression beyond that, no later than the end of the present decade; and (iii) the addendum, which in annex 1 contains tables listing and structuring information related to all AIJ projects, and which presents, in annex 2, a proposal for a revised uniform reporting format (URF) based on inputs by Parties to the secretariat on their experience in using the URF adopted in decision 10/CP.3.[6]

3. The document draws upon submissions by eleven Parties which responded to the request for information by 7 July 1999, on the experience emerging from 122 AIJ projects currently in various stages of implementation, and on methodological work carried out in the course of the AIJ pilot phase.

4. Parties may wish to note that references to the AIJ pilot phase are also contained in the synthesis of proposals by Parties on principles, modalities, rules and guidelines for mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol (FCCC/SB/1999/8), in particular in the parts on Article 6 projects and on the clean development mechanism (CDM).

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[2] For the full texts of decisions adopted by the Conference of the Parties at its fourth session, see document FCCC/CP/1998/16/Add.1.

[3] For the full texts of decisions adopted by the Conference of the Parties at its first session, see document FCCC/CP/1995/7/Add.1.

[4] See footnote 1.

[5] See document FCCC/SBSTA/1999/6.

[6] For the full texts of decisions adopted by the Conference of the Parties at its third session, see document FCCC/CP/1997/7/Add.1.

PART ONE: REPORT ON ISSUES TO BE ADDRESSED IN A COMPREHENSIVE REVIEW OF THE AIJ PILOT PHASE

I. INTRODUCTION

5. The subsidiary bodies at their tenth sessions agreed that the review of the pilot phase referred to in decision 5/CP.1, paragraph 3 (b) and decision 6/CP.4 shall address, *inter alia*, those issues listed as headings below. Parties were invited to submit additional views and information by 7 July 1999. The secretariat was requested to prepare a report based on these[7] as well as on additional information provided within the reporting framework for the AIJ pilot phase using the uniform reporting format. Aspects which emanated from work on methodological issues identified by the SBSTA at its fifth session and relevant work related to Articles 6 and 12 of the Kyoto Protocol are also being referred to.[8]

II. ISSUES

A. Geographical distribution of projects, particularly the lack of projects in Africa, and the analysis of contributing factors

6. The number of Parties which are gaining practical experience and are "learning-by-doing" through the AIJ pilot phase has quadrupled since 1997. There has been a 30 per cent increase in the number of projects[9] and of host countries over the past year, with four of the eight new host countries being located in Africa. Among the 44 Parties currently accumulating experience with AIJ, 33 do so as host and eleven as investor Parties. The detailed list of projects, and related tables, are contained in annex 1 to this document.[10]

7. The distribution of projects across regions and countries remains uneven in spite of recent improvements. Two thirds of projects are carried out among Annex I Parties, i.e. between Annex II Parties as investors and Parties with economies in transition (EIT) as hosts, with over a third of

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[7] Four Annex II Parties (Australia, the Netherlands, Switzerland and the United States of America) and one non-Annex I Party (People's Republic of China) submitted such additional information and views.

[8] The methodological issues were identified in the report on the work of the fifth session of the SBSTA (FCCC/SBSTA/1997/4). Work by the secretariat on these issues has been reported on in documents FCCC/SBSTA/1997/INF.3 and FCCC/CP/1998/INF.3. The compendium of presentations made at the UNFCCC Technical Workshop on Mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol was made available to all Parties at the tenth sessions of the subsidiary bodies.

[9] This synthesis report reflects only those AIJ projects for which reports were received, either jointly or separately, from all designated national authorities (DNA) of Parties participating in an activity as indicated in annex IV to document FCCC/SBSTA/1996/8. (See also paragraph 57.)

[10] For up-to-date information on the AIJ pilot phase, please refer to the UNFCCC Internet site (http://www.unfccc.de/program/aij). Parties will be informed of any changes through an oral update at the sessions of the subsidiary bodies.

all projects being concentrated in two EIT countries (Latvia (24) and Estonia (20)). However, the number of projects hosted by non-Annex I Parties is increasing: whereas only three such Parties reported AIJ projects in 1997, their number has risen to 22, constituting two thirds of all host Parties. Five projects are now reported in the African region (AFR) and are located in Burkina Faso, Mauritania, Mauritius, Morocco and South Africa. In the Asia and Pacific region (ASP), there has been an increase, within one year, from six to nine projects, involving Bhutan, China, Fiji, India, Indonesia (two projects), the Solomon Islands, Sri Lanka and Thailand. There are 29 projects in Latin America and the Caribbean (LAC). Of these, Costa Rica continues to host the most projects (nine), while Mexico has five, Honduras and Bolivia four each, and Ecuador and Guatemala two activities, respectively. Belize, Nicaragua and Panama have one project each.

8. Parties identified, *inter alia*, the following reasons for the uneven distribution: (a) differences in the investment climate; (b) cultural differences; (c) insufficient infrastructure; (d) institutional capacity; (e) relative absence of investment companies; (f) lack of a policy on AIJ and of a clear and transparent set of operational rules on the part of the host country; (g) lack of awareness in the private sector in host countries on opportunities represented by AIJ; (h) variations in the degree of knowledge and acceptance of AIJ by local stakeholders; (i) lack of capacity to produce comprehensive AIJ project proposals; (j) existing preferences, driven by established business partnerships, strategic considerations and political priorities for investors for particular areas; (k) differences in GHG reduction costs and in transaction costs due to, *inter alia*, some of the above points; and (l) current exclusion of crediting for GHG reductions or removals by sinks.

9. Carrying out national strategy studies, and, importantly, adopting a favourable policy and clear and transparent rules and regulations were seen to be crucial steps in addressing some of the obstacles and in building capacity. However, one Party stated that it was unlikely that existing systemic barriers to foreign direct investment in some countries could be overcome by incentives offered under AIJ or even under Article 6 or CDM projects.

B. Contribution of projects to capacity-building and institutional-strengthening needs of Parties, particularly of host country Parties

10. As the number of participating Parties and projects has increased, the AIJ pilot phase is helping to build capacity, particularly by enhancing procedural and institutional experience. Generally, the involvement in the projects ("learning-by-doing") provided exposure to the difficulties of designing baselines and identifying additionality, to the operation and management of projects, and the setting up of institutional arrangements both in host and investor Parties. Host Parties which set up an AIJ unit appear to be more successful in attracting financial resources and in directing them towards priority areas of national development. Parties are expanding their activities in this respect by designating national focal points for AIJ and calling

for and participating in technical workshops, seminars and conferences on the AIJ pilot phase and on the project-based mechanisms pursuant to Articles 6 and 12 (CDM) of the Kyoto Protocol.

11. Experts in a UNFCCC workshop on capacity-building, held in 1998, further stressed that capacities and needs varied among host countries due to differences in the environment for investment, policy and project development, the level of infrastructure development, and administrative structures. Key elements for increasing the likelihood of success of projects were the existence of local promoters who could catalyse government action; the awareness for the climate change-development link by policy makers; and the provision of an enabling environment. Stages of possible action by host countries and practical steps were presented (see FCCC/CP/1998/INF.3).

12. One Annex II Party, stressing that the views of host Parties were essential for the review process on the issue of capacity-building and institutional-strengthening, forwarded a summary on the needs identified by experts from EIT countries.[11] These are as follows: (a) increased public environmental awareness and "climate literacy"; (b) regular access to updated information on climate change, AIJ, Article 6 and CDM opportunities by business/industry, municipalities, local authorities and NGOs, in particular in local languages; (c) improved knowledge regarding vulnerability to climate change, the limited financial resources for climate-specific mitigation and/or adaptation policies, and the potential benefits of the Kyoto Protocol mechanisms; (d) specific expertise to identify, evaluate, implement, manage and monitor AIJ, Article 6 and CDM projects (e.g. capacity for financial analysis of projects; managerial competence); (e) policy expertise to link strategies/plans with a realistic economic-financial analysis; (f) environmental expertise in the private sector and improved knowledge of technology options (costs, benefits); (g) infrastructure and know-how to conduct quantitative modelling studies (e.g. emission projections, estimations for trading potential); and (h) design of efficient institutional arrangements.

13. In order to be able to better assess the degree to which involvement in the AIJ pilot phase was leading to the strengthening of endogenous capacity, the draft revised URF (see annex 2) specifically requests further information, for example on actors involved in the identification of the baselines.

14. It may be further noted that the issue of capacity-building related to, *inter alia*, project-based mechanisms is addressed in document FCCC/SB/1999/6 to be considered under agenda item 7, Capacity-building, at the eleventh sessions of the subsidiary bodies.

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[11] For detail, please refer to "Synthesis Study of the National AIJ/JI/CDM Strategy Studies Program". Copies may be obtained through the Swiss AIJ Pilot Program, the Ministry of Environment of Finland and/or the World Bank.

C. Contribution to the host country's sustainable development needs, priorities and strategies

15. AIJ projects are generally seen to contribute to national environmental, economic, social and development goals as indicated in the synthesis below, even though the level of detail of information is often limited. Parties indicate a range of goals and objectives with which AIJ are to be compatible: some state sustainable development goals in the areas of forestry and land-use, energy and transport, and the need to balance trade in traditional and non-traditional goods. Others require the activity to be in accordance with, or in support of, specific national, sectoral and/or local policies and describe relevant selection criteria.

16. Views and/or information, studies and articles on this matter were forwarded by some Parties which suggested that the contribution to sustainable development by these activities should be assessed by the host Parties. One Party suggested that it might be useful for the COP/MOP to issue guidelines for the assessment of the contribution of CDM projects to sustainable development by host Parties. Such guidelines might require, for example, that local stakeholders be involved in the assessment process or that the host Party involved must define one or more quantitative/qualitative indicator(s) of sustainable development for each project, which can be tracked over the course of the project.

D. Assessment of environmental benefits related to the mitigation of climate change that would not have occurred in the absence of AIJ, covering all relevant sources, sinks and reservoirs of greenhouse gases and the methods used to measure, monitor and independently verify these emissions, including by type of project, and other environmental benefits

17. The combined GHG emissions reduction impact over the lifetime of AIJ projects is estimated at 206 million tons of carbon dioxide (CO_2) equivalent (as compared to 162 million tons in 1998). The average impact per project, over an average lifetime of 16 years,[12] would thus be 1.9 million tons of GHG emissions reduced or sequestered.[13] Some four out of five projects are energy efficiency and renewable energy projects. Of the overall abatement impact, 12 forestry projects are estimated to provide 65 per cent, and 13 renewable energy and 3 fugitive gas projects approximately 14 per cent each. Four per cent are estimated to come from 40, mostly relatively small, energy efficiency projects. The actual GHG emissions reduced or sequestered are currently small compared to those estimated, mostly owing to the fact that many projects are at an early stage of implementation.

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[12] The definition of lifetime varies between projects in the absence of a definition in the URF. The draft revised URF contains a new set of dates and proposes a definition of lifetime.

[13] This is based on data on estimated greenhouse gas (GHG) emissions reduced or sequestered available from 108 of the 122 projects.

18. With regard to methods to assess environmental benefits, most Parties indicate that further guidelines on the methodologies for identification of baselines are required. Some Parties report that they have elaborated such guidelines for project developers. The environmental benefits of an AIJ project related to the mitigation of climate change are considered to be measurable if the actual level of GHG emissions of the project case and the level of GHG emissions in the baseline scenario can be established with a reasonable degree of certainty.[14] The conditions under which one or the other approach could be more efficient and the trade-offs involved are currently being discussed in anticipation of the project-based mechanisms under the Kyoto Protocol.

19. On the issue of measurement, monitoring and independent verification of emissions, methods will depend on the type of project, its particular technological characteristics and effects outside the system boundary. Guidelines and protocols for monitoring and verification will need to be developed that take into account this variety of characteristics. Some national guidelines on these issues have been developed and may serve as a starting point. Some Parties made proposals on working definitions of some key terms which are similar to those made by participants in a UNFCCC workshop[15] in 1998, which included experts from auditing and certification companies, representatives of AIJ national registration offices and representatives of designated national authorities.[16] Further technical papers on these issues were presented at the UNFCCC technical workshop on the mechanisms under Article 6, 12 and 17 of the Kyoto Protocol and are included in the compendium of presentations which was made available to Parties at the tenth sessions of the subsidiary bodies.

E. Contribution of projects and related activities to the transfer of environmentally sound technologies to the host country

20. The information currently available does not indicate the degree to which individual projects have contributed to the transfer of environmentally sound technology and know-how: Several pathways for the transfer of technology were, however, frequently described in a generic way, including the provision of technical expertise (via specialists); cooperation between foreign suppliers and local partners; technical meetings (e.g. conferences and seminars); technical advice

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[14] FCCC/SBSTA/1997/INF.3.

[15] See document FCCC/CP/1998/INF.3.

[16] The following can be seen as generic definitions for project-based mechanisms, including AIJ: (i) "approval": the requirement that the voluntary participation in a project is approved by each Party involved; (ii) "monitoring": the periodic systematic surveillance/measurement of the performance of the project and collection of data; (iii) "verification": the independent evaluation of results that have been achieved against preset criteria; (iv) "certification": the procedure by which an independent accredited body gives written assurance that a set of criteria is met by an activity or a performance achieved. It is noted that certification is not a requirement under AIJ. Two projects have, however, undergone a third party verification and certification process (one in forestry and one in energy). So far, no detailed reports have been submitted by Parties involved in those activities on experience and lessons learned.

(e.g. documentation and training); and networking among different groups involved (e.g. between plant owners with similar problems).

21. One host Party noted that AIJ projects may have contributed to the demonstration and dissemination of environmentally sound technologies but that the extent of technology transfer in the context of AIJ was hard to assess in the absence of guidelines and standards. The draft revised URF in annex 2 to this document contains suggestions for improving the reporting of information.

F. Identification of factors that might increase the number of projects implemented under AIJ, taking into account the provisions of decision 5/CP.1, paragraph 1

22. Parties listed the following reasons as hindering the increase in the number of AIJ projects: (a) the current lack of obligation (such as domestic legislation) for the private sector in Annex I Parties to limit GHG emissions; (b) lack of crediting of GHG emission reductions and removals by sinks; (c) the lack of project development, approval and operational capacity in host countries; (d) the uncertainty, related to points (a) and (b) above, regarding the likelihood of ratification of the Kyoto Protocol and the eligibility of AIJ projects for credits in the context of Article 6 and the CDM; (e) high transaction costs; and (f) the uncertainty regarding two major interlinked methodological issues, the identification of the project baseline and additionality.

23. Notwithstanding the importance of the factors stated above, the knowledge base - a prerequisite for the promotion of AIJ projects - has markedly increased as more Parties have become aware of the potential benefit of being engaged in the AIJ pilot phase and as the number of projects of different types and their regional spread are expanding. Also, over the last one and a half years several regional and national workshops on AIJ, and/or the CDM, have furthered this objective. Other knowledge indicators are also pointing upward, such as experience with different types of projects by one host or experience with projects in different regions by an investor Party.

G. Assessment of the uniform reporting format and elaboration of options for its improvement, including a list of standardized terminology and common definitions for key terms, *inter alia*, related to costs, baselines, monitoring, reporting and verification

24. The quality of reporting, i.e. the degree of homogeneity, scope and detail of reporting has significantly improved. Reports still varied, however, in terms of details of coverage which limits the possibility to provide analyses on some key issues, such as environmental, social/cultural and economic benefits, and the cost-effectiveness of projects.

25. The draft revised URF, contained in annex 2, reflects views by Parties and attempts to enhance the standardization of information and user-friendliness. While further work is required on the development of common terminology and standardized definitions, the draft revised URF makes several suggestions, such as on cost items and other issues (see also H. below). It is also proposed that henceforth simultaneous and joint reporting by all DNAs involved, using the URF, be mandatory.

H. Consideration of costs, including costs of greenhouse gas reductions and transaction costs, and examination of related methodologies

26. AIJ are to "contribute to cost-effectiveness in achieving global benefits" and should "bring about real, measurable long-term benefits related to the mitigation of climate change that would not have occurred in the absence of such activities" (decision 5/CP.1). It is therefore of importance to be able to assess the difference in cost between the AIJ project and the considered baseline option.

27. The basis for calculating costs and GHG mitigation effects is, however, often insufficiently explained in the reports and does not allow for the replication of the calculation. There is no consistency in defining the costs of the AIJ component and other items, such as the lifetime of the activity and technical data. Most of the data on costs, cost-effectiveness, and the amount of GHG abated or sequestered remain at the level of estimates of varying accuracy, mainly because of uncertainty about appropriate procedures for establishing baselines as well as definitional and conceptual problems. Their usefulness for analysis is therefore limited. The draft revised URF in annex 2 addresses these issues and includes suggestions on how to modify the URF so that such information becomes more consistent and provides a better basis for analysis.

28. Referring to methodological approaches, one Party reported that it requires project proponents to use the net present values (NPV) method for cost and revenue items, both expressed in real US dollars (indicating a base year). This method allows all values to be brought to a comparable unit/value at one point in time, taking into account effects such as, *inter alia*, inflation, interest rates (discounting) and purchasing power differences. This standard method was easily applied by using spreadsheets. Its use may require, however, that assumptions are revealed on some key parameters which may imply the institution of confidentiality procedures.

29. Regarding the determination of cost-effectiveness, i.e. through the comparison of costs per ton of CO_2 equivalent reduced of various (project) scenarios, a Party suggested that the NPV of the costs of the AIJ project could be compared to that of the baseline project costs. The difference could be related to the GHG reduced or removed by the AIJ project. This method would ensure that all possible cost differences were taken into consideration.

30. Parties have suggested that the cost items should be defined in a harmonized fashion as follows: (i) project development costs; (ii) capital costs; (iii) implementation/installation costs; (iv) operation and maintenance costs (including fuel costs as one sub-item); and (v) other costs. It may be necessary to identify sub-items to be covered in each of the above categories to ensure the full comparability of information. If Parties wish to develop this further, the section on costs in the URF would require additional revision based on input from experts.

31. Some Parties submitted views on transaction costs. It is generally noted that transaction costs associated with the AIJ pilot phase are relatively high at the macro- as well as at the project-level. No cost figures have, however, been clearly defined and reported. Some Parties indicated that transaction costs were incurred, *inter alia*, for match-making between promoters and potential investors; awareness-raising on AIJ and the Convention; determining credible baselines; and obtaining host and investor country approval. The lack of a common terminology and guidelines was identified as an additional factor. Through addressing these issues and by gaining practical experience, some of these transaction cost items could, however, be expected to decrease. In clearly distinguishing between production costs and transaction costs, some items currently subsumed under the latter (e.g. baselines and additionality identification, monitoring, verification) may, for example in the case of CDM projects, be allocated as production costs incurred for generating certified emission reductions.

32. The issue of transaction costs is an important element of the discussion on different approaches to baseline setting. While a 'top-down' or a 'benchmark' approach may involve lower costs for project developers/implementers than a 'project-specific' baseline setting,[17] the costs to the public budgets (e.g. for establishing *ex ante*, and updating, 'benchmarks' for a number of project types in a variety of contexts) may be substantial.

I. Evaluation of how standardized methodologies for project review and approval, by both the host and sponsoring Parties, may enhance overall transparency and reduce transaction costs

33. One host Party stated that Parties may have different situations and procedures for approval and review and that therefore no standardization was necessary. Other Parties argued that a set of operational criteria and guidelines for project identification (including for baselines and additionality), reporting, monitoring and verification - reflecting the international rules adopted by COP, along with a set of common terminology - would facilitate transparency and reduce transaction costs. Further improvements with regard to transparency and reduction of transactions costs could be achieved through making information on national approval

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[17] The project-specific approach is based on some combination of engineering judgement and site-specific analysis to generate a customized estimate for each project or activity; the 'matrix'/ 'benchmark' approach often relies on an engineering approach to set standard baseline values for a particular technology, land-use practice or industrial sector; finally, the 'top-down' approach seeks to set a generalized baseline for a country or a major sector of the economy and often relies on a form of macroeconomic analysis (FCCC/CP/1998/INF.3).

procedures and additional project eligibility criteria (e.g. designated national authority, priority sectors, particular type of projects) more easily available.

34. The draft revised URF aims at meeting some of these concerns. Further work may, however, be required for issues as stated below.

J. Identification of further work required with respect to baselines, project monitoring, reporting and verification procedures

35. Parties indicated that areas of further work may include:

(a) Development of common terminology and standardized definitions;

(b) Development of operational criteria for various approaches for baseline identification and additionality, as part of the development of guidelines;[18]

(c) Revisions of the URF, as deemed necessary;

(d) Development of guidelines and standard protocols for monitoring and verification;[18] and

(e) Identification of key policy issues that would have an impact on the development of guidelines.

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[18] In conjunction with the tenth sessions of the subsidiary bodies, the secretariat convened a CC:FORUM on project-based mechanisms, which addressed, *inter alia*, the identification of baselines, monitoring, reporting, verification and certification issues. It will hold another such event in conjunction with the eleventh sessions of the subsidiary bodies, thus providing representatives of Parties and experts the opportunity to further exchange expertise and experience.

PART TWO: THIRD SYNTHESIS REPORT ON AIJ UNDER THE PILOT PHASE

I. INTRODUCTION

36. This third synthesis report covers 122 AIJ projects for which information was submitted. Regarding national AIJ programmes, no additional Parties submitted information, even though some Parties provided updates on activities contained in earlier reports. From these few inputs, no new conclusions could be drawn. Detailed information on some of those programme reports is available in electronic format on the UNFCCC Internet site.[19]

II. SYNTHESIS OF REPORTS ON AIJ

37. The results emanating from the reports are summarized in accordance with the structure of the URF. Subheadings, shown underlined within the paragraphs, are followed by the URF number in parentheses.

A. Description of projects

38. The list of projects by type and title (A.1) is contained in table 1 of annex 1 to this document (see also paragraph 57 below).

39. Among the participants/actors (A.2) currently engaged in AIJ are governmental agencies, private sector enterprises including international auditing and certification companies, non-governmental organizations, academic institutions, the International Bank for Reconstruction and Development (hereinafter referred to as the World Bank) and the Global Environment Facility (GEF).[20] Functions within the AIJ ascribed to the host country participants included: acting as a government contact for implementing projects; owner of the facility at the activity site; local investor and developer; as well as agency responsible for reporting on and implementing AIJ projects or for activity evaluation. The functions of the investor country participants focused on technical and financial roles. Specific functions were the provision of technical support and transfer of know-how; management and administration of AIJ; scientific monitoring; and financing of the monitoring costs. As there is currently no detailed standardized information on the role and activities of the participants, the draft revised URF contains proposals in this respect (see annex 2).

40. Activity (A.3) information is structured into (a) a general description of the activity; (b) a classification of activities by type; (c) an identification of the location; (d) an expected starting and ending date as well as the lifetime of the activity, if different; (e) the present stage of the activity; and (f) technical data.

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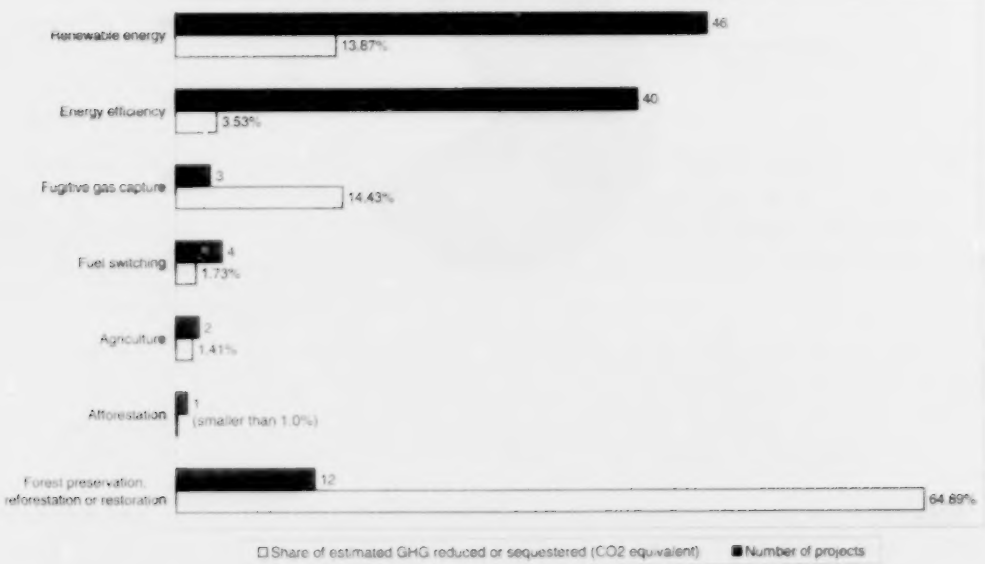
[19] UNFCCC internet site: http://www.unfccc.de/program/aij

[20] In these cases, the AIJ enhanced the scope of the GEF activity.

41. The 122 projects fall into the following categories (the respective number of projects being indicated in parentheses): renewable energy (46); energy efficiency (49); fugitive gas capture (4); fuel switching (7); agriculture (2); emissions/sequestration from afforestation (2); and forest preservation/restoration or reforestation (12). No activities involving industrial processes, solvents, waste disposal or bunker fuels have so far been reported. In summary, 75 per cent of the projects were in the areas of either renewable energy or energy efficiency.

42. Figure 1 shows the number of activities by type related to the share of the estimated GHG emissions reduced or sequestered, expressed in CO_2 equivalent, for those 108 projects for which such information was available. Approximately two thirds of the estimated GHG impact of current AIJ projects is derived from 12 forest preservation, reforestation or restoration projects. Renewable energy and fugitive gas projects contribute about 14 per cent each to the estimated total effect. Energy efficiency projects account for less than five, fuel switching for under two per cent, and afforestation and agriculture for about one per cent of the total estimated impact. Fourteen projects (afforestation (1), energy efficiency (9), fuel switching (3) and fugitive gas capture (1)) did not provide data that was usable for this comparison. It should be noted that, due to their scope, some projects could be classified in several categories. The draft of the revised URF contained in annex 2 suggests definitions and multiple categorization.

Figure 1. Number of activities and share of estimated GHG reduced or sequestered, by type of project

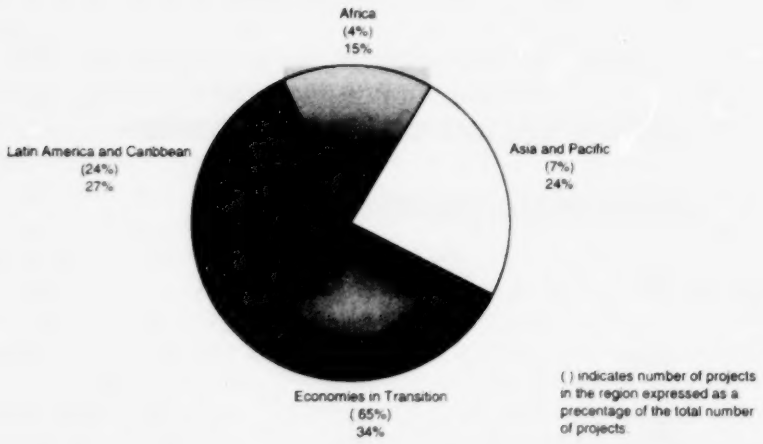


43. In analysing the distribution of projects by type of activity and their GHG impact, it should be borne in mind that a significant number (54) of small activities of a similar type are being carried out in three host Party countries (see table 1). Their projects are in the areas of

energy efficiency (mainly improvement of municipal/district heating systems) and renewable energy (conversion to bio-fuel boilers). These projects are small in terms of investment as well as in their GHG impact, and other projects have clustered such activities and reported them in an aggregated manner as one project.

44. Figure 2 relates the number of host Parties to the number of projects by region expressed as a percentage of the respective total. With the recent expansion in the number of projects, the geographic distribution of activities has begun to improve. Particularly Africa (AFR), now representing 15 per cent of all host Parties, showed an increase since 1998 from one to five projects. In the Latin America and Caribbean (LAC) region, the number of projects increased from 20 in 1998 to 29, and for the Asia and Pacific region (ASP) from six to nine projects. While economies in transition (EIT) represent 34 per cent of host Parties and carry out 65 per cent of all projects, these numbers should be seen in the context of paragraph 43 above.[21]

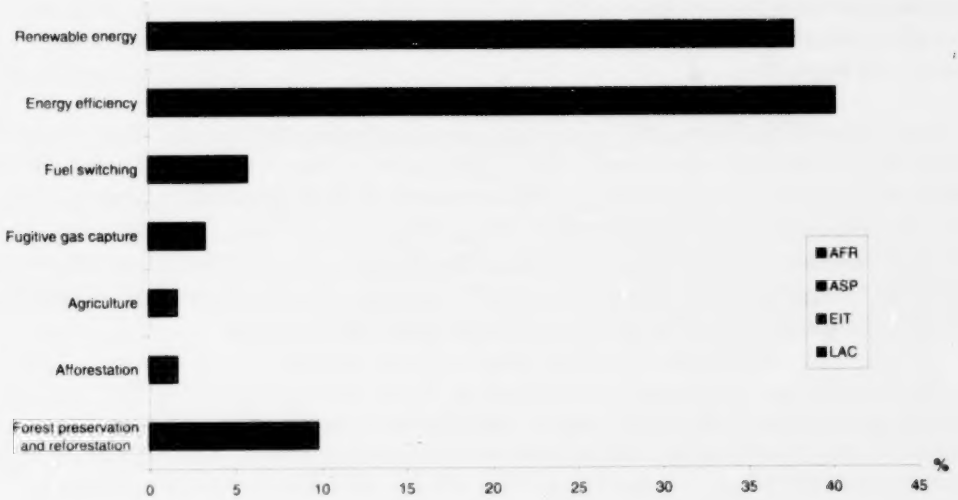
Figure 2. AIJ host Parties by region
- as a percentage of all host Parties -



[21] The five African projects are located in Burkina Faso, Mauritania, Mauritius, Morocco and South Africa. Parties hosting AIJ in the Asia and the Pacific region include Bhutan, China, Fiji, India, Indonesia, Solomon Islands, Sri Lanka and Thailand. Belize, Bolivia, Costa Rica, Ecuador, Honduras, Guatemala, Mexico, Nicaragua and Panama are hosting projects in the Latin America and Caribbean region. EIT hosts are Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Russian Federation and Slovakia.

45. Figure 3 shows that activities in the areas of energy efficiency, renewable energy, fuel switching and fugitive gases are mainly implemented in EIT countries while forestry-related activities are dominant in LAC countries. Projects in Africa aim at providing renewable energy sources and energy efficiency. No forestry-related projects have been reported in Africa.

Figure 3. Distribution of activities, by region and type
- as a percentage of the total number of projects -



46. Another interesting indicator is the variety of experience gained by one host. One EIT country is gathering experience with five different types of activities, three hosts in LAC are exposed to four different types each, while another EIT country gains experience with three different types. Ten hosts are involved in two project types each, and 18 hosts have just one type of activity.

47. Currently available data show lifetimes of activities ranging from below five to 60 years, with an average of about 16 years. Approximately one third of the projects are in the 16-20 year (12) and over 20-year (29) range. Only very few projects (8) run for less than five years. For eleven activities it was not possible to identify the lifetime from the information provided.

48. In reporting on the stage which an activity has reached, Parties currently have divergent interpretations of the three available descriptors provided for in the URF. In some cases, indicated stages appear to be in contradiction with other information on the same project, for example projects are being reported as completed while not having reached the end of their

lifetime. Bearing this caveat in mind, the information that 33 projects[22] are reported as being "mutually agreed", 39 as "in progress" and 50 as "completed" should be taken with caution. In the absence of reliable information on the stage of implementation, data on actual GHG emissions reduced or removed cannot be properly analysed. The draft revised URF in annex 1 provides a proposal for a refined definition of stages.

49. Technical data, in general, relate to the scale of deployment of the technology (for example, installed capacity, throughput, etc.). There was little description of such technologies (such as particular models, configurations of equipment, associated technologies). Section G of this part of the document covers, *inter alia*, the issue of transfer of environmentally sound technology and know-how.

50. Cost information, to the extent possible (A.4): Information on costs has been provided with some level of detail in most reports. Some reports specify the distribution of types of costs over the years, while others just provide cumulative cost data. Cost items differ between reports. In some cases the methodology and assumptions (e.g. discount rates) have been indicated. In order to provide transparency, consistency and replicability of cost calculations, the draft revised URF in annex 2 suggests improvements. Parties may wish to provide guidance on the treatment of confidentiality of cost information in the URF and in any future reporting.

51. Mutually agreed assessment procedures (A.5): Some activity reports describe the roles of host country organizations. Most reports state that local and/or national organizations are responsible for the majority of the AIJ data collection and related monitoring activities during the operational phase of projects. Responsibilities for carrying out measurements were generally assigned to national and municipal institutions and, in some cases, to private organizations of the host country. Assessments were commonly carried out by public and private organizations of the host country. For energy-related projects in many Baltic States, for example, local organizations are appointed to monitor the project and to report to the Ministry of Environment. The responsibility to report on AIJ to the DNA was assigned, in some cases, to a private company of the investor country, and in other cases, to private or public organizations in the host country, sometimes with initial support from the investor country organizations. This distribution of responsibilities suggests that capacity-building for carrying out assessments may be needed at various levels.

52. Only a few projects mention the collection of baseline or reference case data sets, and the assessment of potential or occurring leakage (i.e. positive or negative effects outside the system boundary). Baseline analyses hardly refer to data on economic and market circumstances that may influence the energy sector in particular.

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[22] Activities that were only reported as accepted, approved or endorsed by all Parties involved, without further detail, were categorized as "mutually agreed".

53. Agriculture and forestry-based projects provide some information on parameters to be monitored, primarily forestry parameters such as above- and below-ground biomass stocks, deforestation and degradation trends, growth rates, extraction volumes, soil carbon contents, wood products.

54. Some projects state that verification will be done by the domestic AIJ office, a ministry, or an independent third party. Most projects, being in their early implementation stages, have, however, not yet chosen their third party verifier. Two projects - one in forestry and one in energy - have undertaken a verification/certification exercise involving leading international inspection and testing firms. Detailed results and experiences have not yet been reported in the URF.[23] On the basis of the current URF, no conclusions can be drawn with regard to the verifiability of baselines.

B. Governmental acceptance, approval or endorsement

55. All 122 activities listed in table 1 have been reported as accepted, approved or endorsed by the relevant DNAs involved. All reports were submitted jointly, that is by one Party providing proof, on official letterhead, of concurrence, approval, acceptance or endorsement of the information by all other Parties involved. However, in some cases such proof was submitted at a later stage, resulting in additional administrative burden and cost. In cases where the proof was not submitted in time, the report was not considered in this document.

C. Compatibility with, and supportiveness of, national economic development and socio-economic and environment priorities and strategies

56. Responses by Parties show a range of goals and objectives with which AIJ are to be compatible: some state sustainable development goals in the areas of forestry and land-use, energy and transport, and the need to balance trade in traditional and non-traditional goods. Others require the activity to be in accordance with, or in support of, specific national, sectoral and/or local policies and describe relevant selection criteria.

D. Benefits derived from the AIJ project

57. Brief qualitative and quantitative information is provided regarding environmental, social/cultural and economic benefits. Nearly all Parties state benefits in each category, often including quantitative data for environmental benefits such as reductions in emissions of GHG and also referring to SO_2, N_xO and particles. Fostering biodiversity, improving water and air

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[23] Technical papers on the issues of monitoring, reporting, verification and certification presented at the UNFCCC technical workshop on the mechanisms under Articles 6, 12 and 17 of the Kyoto Protocol, covering also the experience of a verification exercise on the Norway-Mexico AIJ project "High Efficiency Lighting (ILUM[illegible]" are included in the compendium of presentations which was made available to Parties at the tenth session[illegible]e subsidiary bodies.

quality and reducing erosion of hydrological resources are other environmental benefits mentioned. The majority of the reports indicate social/cultural benefits, including active involvement of local communities, increased public awareness, and the maintenance of natural heritage and historical sites. Among the economic benefits are savings on energy, effects of an improved work environment and economic opportunities through the introduction of new technologies. A few Parties also include the development of local production capacity through the involvement and/or establishment of local enterprises.

E. Real, measurable and long-term environmental benefits related to climate change that would not have occurred otherwise

58. Estimated emissions without the activity (project baseline) (E.1): Experience on this issue is accruing as the number and types of projects have increased. In most cases, brief descriptions of project baselines but no actual data sets were provided. Some Parties reported baselines, such as for energy efficiency projects, that assumed no change in the pattern of energy consumption over the lifetime of the activity. Other Parties reported a continuation of present trends, for example assuming declining carbon stocks or unsustainable energy consumption patterns. Assumptions, in some cases, imply that there would be no technological advance or energy efficiency improvements in the absence of an AIJ. One Party indicated the development of a "project-specific" and of a "top-down" baseline for the same project.

59. Estimated emissions with the activity (E.2): Scenarios and methodologies for calculating emissions reduced, avoided or sequestered were provided by most projects. Economic factors, system boundary and leakage were, however, in most cases, not sufficiently addressed.

60. Actual GHG emissions reduced or sequestered (Summary table E.2): As implementation is proceeding, an increasing number of projects are providing data. Except for the small projects (see paragraph 43 above), most projects, however, reported no actual emissions data at this point. The calculations of projected and actual emission reductions focused primarily on CO_2. Only a small number of reports provide sufficiently detailed data to allow for the replication of calculations.

61. The currently reported actual emission reductions are very small (approximately 1-2 per cent) when compared to the total estimated GHG reductions or removals,. This is due to the fact that most projects are at an early stage, some having long lifetimes, and that actual impacts may be progressive over the lifetime of projects. Further detailed analysis would be required bearing in mind also the differentiation by stages and possible inconsistencies in reporting. The draft revised URF contained in annex 2 addresses the lack of definition and proposes a refined system or identifying the stage reached by a project.

F. Financing of AIJ

62. Four fifths of AIJ projects, being either "mutually agreed", in "progress" or already "completed" (see paragraph 48), indicate financing sources. The information for the remaining 20 per cent of activities is unclear or not available.

63. As regards funding from Annex II sources, eight per cent of activities are funded by the private sector, 66 per cent from public sources and five per cent from a combination of the two. Private investment flows in AIJ still remain low and are involved in approximately one in seven activities. This is in contrast to the interest shown by the private sector in projects foreseen under Article 6 of the Kyoto Protocol and the CDM.

64. Two thirds of the projects involve public funds of the investing Party. These are, to the extent that it can be judged from the reports, additional to official development assistance (ODA) and contributions to the financial mechanism of the Convention. In those cases where multiple sources of funding are available, such financial additionality would need to be clearly indicated and further explained. In several projects involving funding by the GEF, the AIJ component of the project is considered to add to the climate change benefits of the original project. The nature of the public funds is diverse. One Party has, for example, instituted a revolving fund which finances technical assistance and capacity-building activities in the form of grants but provides for the remaining elements of the project loans at a preferential rate to host country entities, with the repayments by the host being reinjected into the fund.

G. Capacity-building, transfer of environmentally sound technology and know-how

65. From the information provided, it is not possible to assess the degree to which projects have contributed to capacity-building, the transfer of technology and know-how. Some projects included specific information related to the building of endogenous capacities, usually by referring to the training of a specific individual or institution. For several projects, the demonstration aspect for a particular technology was presented as an element of the transfer of technology and capacity-building.

66. Several pathways for transferring environmentally sound technology and know-how were frequently reported in a generic manner, including provision of technical expertise (via specialists); cooperation between foreign suppliers and local partners; technical meetings (such as conferences and seminars); technical advice (such as documentation and training); and networking among different groups involved (for example, between plant owners with similar problems).

67. Technology transfer was generally interpreted at the level of the project. The impact of projects on the target technology market (national or international) was rarely described, except implicitly in a few projects which are categorized as demonstration projects. Collaboration with

local suppliers and institutions was frequently emphasized, though specific details of cooperation were rarely reported upon.

68. Few projects clearly indicated the origin of the technology (manufacture or purchase), related promotional activities (such as information dissemination), barriers overcome (market, legal, institutional), institutions strengthened, new financing schemes and models or new legal or institutional arrangements introduced.

H. Additional comments

69. Most of the additional comments are specific to the activity and refer to technical, environmental, financial and coordination aspects. Such comments also stress the importance of training and capacity-building to maintain, service and manage technologies.